

Wildrose 1991

824151

HOLE NUMBER: TM92-40

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: WILDROSE	PLOTTING COORDS	GRID: DEADWOOD GRID	ALTERNATE COORDS	GRID:	COLLAR DIP: -45° 0' 0"
PROJECT NUMBER: 661		NORTH: 25.00N		NORTH: 0+ 0	LENGTH OF THE HOLE: 71.90m
CLAIM NUMBER: WILDROSE		EAST: 250.00W		EAST: 0+ 0	START DEPTH: 0.00m
LOCATION: DEADWOOD ZONE		ELEV: 1265.00		ELEV: 1265.00	FINAL DEPTH: 71.90m

COLLAR GRID AZIMUTH: 180° 0' 0" COLLAR ASTRONOMIC AZIMUTH: 220° 0' 0"

DATE STARTED:	0, 0	COLLAR SURVEY: NO	PULSE EM SURVEY: NO	CONTRACTOR: ATLAS DRILLING LTD.
DATE COMPLETED:	0, 0	MULTISHOT SURVEY: NO	PLUGGED: NO	CASING:
DATE LOGGED:	0, 0	RQD LOG: NO	HOLE SIZE: NQ	CORE STORAGE: GREENWOOD

PURPOSE:

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
0.00	-	0° 0'	ACID	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

HOLE NUMBER: TM92-40

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 2.70	«CASING»					
2.70 TO 14.30	«ULTRAMAFIC »	<p>Colour: dark rusty green Grain Size: Speckled texture with 10% black, serpentine specks (replacing pyroxenes?)</p> <p>-common white calcite stringers 1-12 mm wide, approx 1 per 40 cm -moderately broken @ the top of the interval</p> <p>{2.7-7.8} «moderately broken»</p> <p>-the interval is less speckled from 11.7-14.3</p> <p>-one 15 cm qtz stringer @ the lower contact @ 50 deg TCA within a moderate fault</p> <p>{14.1-14.3} «mod flt, qtz stringer» {13.8-13.9} «mod flt»</p>	50	{2.7-14.3} «wk carb»	{2.7-14.3} «0.5% py» -as fine disseminations	
14.30 TO 18.10	«SILTSTONE & SANDSTONE »	<p>Colour: light to med. grey/green Grain Size: aphanitic to fine -weakly broken -50% of the interval is aphanitic and may be a siltstone (xenoliths?) -the rest of the interval is f.gr. and siliceous (sandstone?) -fine, pyritic cleavage(?) developed in the siltstone (<1 mm wide, discontinuous fractures @ 10-30 deg TCA</p>		{14.3-18.1} «mod arg»	{14.3-18.1} «2% py» -fine stringer and clusters up to 1 cm in diameter	
18.10 TO 25.70	«CHERTY TUF F»	<p>Colour: light grey/green Grain Size: -bedded tuffaceous layers up to 10 cm wide and cherty layers up to 20 cm wide (approx 60/40 chert/tuff) -the nature of the upper contact is unclear -the lower contact is intrusive -fine, pyritic fracture network</p>		{18.7-25.7} «wk arg»	«2% py» -as fine fracture filling (dominant in the cherty beds)	

HOLE NUMBER: TM92-40

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 2

HOLE NUMBER: TM92-40

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
25.70 TO 26.50	«PORPHYRITIC DIORITE»	Colour: light grey Grain Size: m.gr. -massive, porphyritic dyke with 10% altered fine to med. fsp phenocrysts -contacts	70	{25.7-26.5} «wk arg»	{25.7-26.5} «0.5% py» -as fine disseminations	
26.50 TO 30.10	«CHERTY TUFF»	Colour: light grey Grain Size: -bedded tuffaceous layers up to 10 cm, wide (approx 50%) and cherty layers (approx 50%) -fine, black, pyritic fracture network -weakly, broken throughout		{26.5-30.1} «wk arg»	{26.5-30.1} «0.5% py» -as fine disseminations and fracture fillings	
30.10 TO 45.30	«DIORITE»	Colour: light green Grain Size: m.gr. 30.1-30.4: porphyritic diorite -10% altered medium plagioclase phenocrysts -the lower contact is sharp (intrusive) and oriented @ 30.4-44.0: fine to aphanitic diorite -med. grey/green, f.gr. -mottled, locally moderately broken {36.2-36.3} «wk flt» -minor calcite stringers 1-5 mm wide, approx 1 per meter 44.0-45.3: quartz stringer zone -dark grey, f.gr. -moderate foliation @ 70-90 deg TCA, parallel to 2-5 mm wide qtz stringers approx 1 per 10 cm	90	{30.1-30.4} «wk arg» {30.4-44.0} «wk arg» {44.0-45.3} «wk sil»	«0.5% py» -as fine disseminations «0.5% py» -as fine disseminations {44.0-45.3} «2% py» -as fine to med. disseminations, small clusters with and without qtz	
45.30 TO 46.10	«QUARTZ VEIN»	Colour: white and dark grey Grain Size: f.gr. -40% white fractured qtz in stringers and lenses 1-2 cm wide, cutting a mixture of dark grey qtz(25%), diorite (25%) and pyrite(10%) -the white qtz stringers are parallel to stylolites and an intense foliation @ 60-90 deg TCA				

HOLE NUMBER: TM92-40

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 3

HOLE NUMBER: TM92-40

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-the lower contact is weakly broken ‡46.0-46.1‡ «probable wk flt»				
46.10 TO 66.70	«SILTSTONE»	Colour: dull med. green Grain size: 46.1-55.7: massive siltstone -rare bedding (occasional coarser beds <1cm thick) -fine, chloritic fracture network (cleavage?) of subparallel discontinuous stringers < 1mm wide @ 40-90 deg tCA -fine calcite stringers 1-3 mm wide, approx 1 per 15 cm @ all orientations 55.7-58.0: intensely foliated siltstone (shear?) -dull med. green -banded texture parallel to an intense foliation @ 60-70 deg TCA -5% "augens" of unfoliated siliceous material up to 2 cm in diameter ‡55.7-58.0‡ «i shear?» 58.0-61.4: massive siltstone -dull med. green -minor faint bedding -weakly broken 61.4-62.6: intensely foliated siltstone (shear?) -dark grey -20% broken and boudinaged qtz and qtz/calcite lenses up to 1 cm wide parallel to an intense foliation @ 70-90 deg TCA ‡61.4-62.6‡ «i shear» 62.6-66.7: massive siltstone -dull med. green -moderately broken throughout -10% chert (dark grey) in small lenses -local vugs up to 1 cm in diameter	‡46.1-66.7‡ «possible wk ser»	‡46.1-55.7‡ «0.5% py» -as fine disseminations and fracture fillings ‡58.0-61.4‡ «0.5% py» -as fine disseminations ‡61.4-62.6‡ «2% py» -as fine disseminations ‡62.6-66.7‡ «0.5% py» -as fine disseminations		

HOLE NUMBER: TM92-40

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 4

HOLE NUMBER: TM92-40

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
66.70 TO 71.90	«CHERT PEBB LE CONGLOM» E.O.H.	Colour: light grey Grain Size: m.gr. -polymictic chert pebble conglomerate with 20% siltstone beds up to 30 cm wide -locally broken				

HOLE NUMBER: TM92-40

ASSAY SHEET

DATE: 16-December-1992

Sample	From (m)	To (m)	Length (m)													COMMENTS
17188	2.70	5.70	3.00	0.1	50	495	35	3	25	7	69	1	5	4.66	0.01	.
17189	5.70	8.70	3.00	0.1	71	908	35	3	32	11	76	1	5	4.69	0.01	.
17190	8.70	11.70	3.00	0.1	75	766	33	5	39	13	81	4	5	4.58	0.02	.
17191	11.70	14.30	2.60	0.1	101	2034	76	4	73	14	185	50	10	5.97	1.02	.
17192	14.30	16.20	1.90	0.8	51	938	42	5	443	7	1197	105	10	2.86	1.05	.
17193	16.20	18.10	1.90	1	86	142	118	1	31	9	95	98	15	3.98	2.43	.
17194	18.10	21.10	3.00	0.2	44	169	53	4	17	6	24	47	10	2.63	1.37	.
17195	21.10	23.40	2.30	0.4	41	115	36	3	18	6	23	91	15	2.09	0.56	.
17196	23.40	25.70	2.30	0.3	59	119	53	7	31	6	52	104	5	2.82	1.43	.
17197	25.70	26.50	0.80	0.1	114	117	97	4	74	17	176	101	5	9.03	2.82	.
17198	26.50	28.30	1.80	0.1	52	192	57	3	24	7	34	43	10	3.06	1.22	.
17199	28.30	30.10	1.80	0.1	48	85	104	2	18	6	28	67	10	3.29	1.44	.
17200	30.10	33.10	3.00	0.1	108	308	92	4	34	18	114	15	45	7.66	0.58	.
17201	33.10	36.10	3.00	0.1	132	803	134	3	27	16	100	11	15	8.36	0.23	.
17202	36.10	39.10	3.00	0.1	141	709	60	3	77	16	289	47	20	8.01	0.4	.
17203	39.10	42.10	3.00	0.1	110	110	91	3	61	15	184	17	10	7	0.56	.
17204	42.10	44.00	1.90	0.1	171	104	196	5	93	15	305	121	5	7.35	2.06	.
17205	44.00	45.30	1.30	0.1	104	148	266	3	54	11	101	408	10	5.45	2.47	.
17206	45.30	46.10	0.80	2.9	9052	39	1984	2	73	32	157	3285	5	13.61	11.5	3.41 0.099
17207	46.10	49.10	3.00	0.1	147	154	50	4	28	12	81	39	15	4.4	0.35	.
17208	49.10	52.10	3.00	0.1	129	163	56	5	60	14	169	38	10	4.65	0.36	.
17209	52.10	55.70	3.60	0.1	117	215	54	4	30	13	93	16	25	5.08	0.34	.
17210	55.70	58.00	2.30	0.1	127	791	87	5	31	15	117	15	15	4.94	0.27	.
17211	58.00	61.40	3.40	0.1	52	1857	38	3	17	7	51	7	20	2.99	0.1	.
17212	61.40	62.60	1.20	0.1	79	155	34	5	29	11	98	10	10	3.69	0.13	.
17213	62.60	64.70	2.10	0.1	72	79	62	3	20	8	193	14	5	3.32	0.4	.
17214	64.70	66.70	2.00	0.1	74	174	55	5	24	12	99	24	5	4.13	0.43	.
17215	66.70	71.90	5.20	0.1	59	195	35	3	17	8	163	22	10	3.21	0.26	.

HOLE NUMBER: TM92-40

ASSAY SHEET

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT NAME: WILDROSE
PROJECT NUMBER: 661
CLAIM NUMBER: WILDROSE
LOCATION: DEADWOOD ZONE

PLOTTING COORDS GRID:
NORTH: 170.00N
EAST: 175.00W
ELEV: 1230.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 1230.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 129.80m
START DEPTH: 0.00m
FINAL DEPTH: 129.80m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 220° 0' 0"

DATE STARTED: 0, 0
DATE COMPLETED: 0, 0
DATE LOGGED: 0, 0

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: ATLAS DRILLING LTD.
CASING:
CORE STORAGE: GREENWOOD

PURPOSE:

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
32.30	-	-45° 0'	ACID	OK		-	-	-	-	-	
90.20	-	-45° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 1.20	«CASING»					
1.20 TO 19.40	«DIORITE»	<p>Colour: light to med. green Grain Size: f.gr.</p> <p>1.2-16.8: weakly argillic diorite -mottled and banded textures -locally broken</p> <p>‡2.2-5.0‡ «i broken»</p> <p>-white and grey calcite and qtz/calcite stringers 1-6 mm wide approx 1 per 25 cm, occasionally forming a matrix around angular diorite clasts -@ 10-70 deg TCA -moderate speckled texture @ 1.2-5.0</p> <p>16.8-19.4: relatively unaltered diorite -dark green, f.gr. -massive, weakly mottled diorite -minor qtz/calcite stringers -4-12 mm wide approx 1 per meter @ 30-60 deg TCA</p>		<p>‡1.2-16.8‡ «wk arg» -decreases in intensity away from qtz and calcite stringers</p> <p>‡16.8-19.4‡ «local wk arg intervals» -as a 30 cm halo around a qtz stringer and at the lower contact</p>	<p>‡1.2-16.8‡ «1% py» -as fine to med. disseminations, commonly within the qtz/calcite stringers</p> <p>‡16.8-19.4‡ «0.5% py» -as med. disseminations and within the qtz/calcite stringers</p>	
19.40 TO 23.90	«FSP PORPHYRY DYKE»	<p>Colour: light green/grey Grain Size: porph.</p> <p>-3% coarse white plagioclase phenocrysts in a grey, aphanitic matrix -the phenocrysts are totally replaced by clay and/or calcite -1% dark green chlorite altered pyroxene(?) phenocrysts</p> <p>-faint bands parallel to the upper contact @ 50 deg TCA</p> <p>-minor calcite and qtz/calcite stringers (one is banded) 3-15 mm wide, approx 1 per meter @ 40-50 deg TCA</p>		‡19.4-23.9‡ «mod arg + carb»	‡19.4-23.9‡ «0.5% py» -as fine disseminations	
23.90 TO 25.60	«DIORITE»	<p>Colour: med. to dark green Grain Size: f.gr.</p> <p>-moderately broken throughout -this may be a large xenolith within the porphyry dyke</p>		‡23.9-25.6‡ «wk arg»	‡23.9-25.6‡ «0.5% py» -as fine disseminations	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 2

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-calcite stringers 2-4 mm wide, approx 1 per 50 cm -rusty				
25.60 TO 26.40	«FSP PORPH. DYKE»	Colour: med. buff/grey Grain Size: c.gr. -3% medium to coarse plagioclase phenocrysts totally replaced by clay and calcite, trachytically aligned -lower contact is oriented @ 20 TCA not parallel to the trachytic orientation		{25.6-26.4} «mod arg + mod arg»		
26.40 TO 35.90	«DIORITE»	Colour: light to dark green Grain Size: f.gr. 26.4-33.6 -weakly argillic diorite -massive, mottled texture -white calcite and grey qtz/calcite stringers 2-25 mm, approx 1 per 50 cm @ 0-70 deg TCA 33.6-34.2: moderately, foliated diorite -light green, f.gr. -moderate foliation @ 70-90 deg TCA {33.6-34.2} «possible moderate shear» -mottled and banded texture -5% green chlorite speckles, 2-5 mm 34.2-35.9: weakly argillic diorite -med. green, f.gr. -mottled texture -white calcite stringers 2-4 mm wide approx 1 per 50 cm @ 10-20 deg TCA		{26.4-33.6} «wk arg» -highly variable alteration {33.6-34.2} «mod arg, mod ser»	{26.4-33.6} «0.5% py» -as fine to med. disseminations -no visible sx	
35.90 TO 37.00	«CHERTY TUF F»	Colour: light grey Grain Size: Fine, chlorite and silica filled fracture network <1 mm wide, approx 1 per cm -calcite stringers 1-3 mm wide, approx 1 per 30 cm -the contacts are irregular and intrusive(?)			{35.9-37.0} «1% py» -as stringers 1-3 mm wide @ all orientations	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 3

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
37.00 37.00 TO TO 42.40 42.40	«DIORITE» «DIORITE»	Colour: light to dark grey Colour: light to dark grey Grain Size: f.gr. Grain Size: f.gr. -local weak foliation @ 70-80 deg TCA -local weak foliation @ 70-80 deg TCA -white calcite stringers 1-8 mm wide approx -white calcite stringers 1-8 mm wide, approx 1 per 20 cm @ 10-70 deg TCA 1 per 20 cm @ 10-70 deg TCA -one 20 cm interval of crowded fsp diorite with gradational contacts (@ 40.6-40.8 m)		{37.0-42.4} «local weak arg» {37.0-42.4} «local weak arg»	{37.0-42.4} «0.5% py» {37.0-42.4} «0.5% py» -as fine disseminations and within -as fine dissem. and within the calcite stringers	
42.40 TO 52.80	«CHERTY TUF F»	Colour: med. grey Grain Size: Moderately fractured (with chlorite, clay and silica filled fractures <1 mm wide, approx 1 per 20 cm) -local fragmental textures (cherty tuff clasts up to 1 cm in diameter in a dark grey silica matrix) -occasional moderate foliation -calcite and qtz/calcite stringers 0.5-2 cm wide are commonly @ 0-10 deg TCA -contacts are intrusive (?) and 70 deg TCA		{42.8-52.8} «local weak silica»	{42.8-52.8} «1% py» -as fine stringers and dissem. and within the calcite and qtz/calcite stringers (up to 30% of the stringer)	
52.80 TO 63.90	«DIORITE»	Colour: med. yellow green Grain Size: f.gr. 52.8-62.0: moderately foliated diorite -mottled and banded common chaotic, moderate foliation @ 0-80 deg TCA -white and grey qtz chalcedony and qtz-calcite stringers 2-10 mm wide, approx 1 per 20 cm @ 30-60 deg -minor xenoliths(?) of cherty tuff <10 cm wide 62.0-63.9: massive, unfoliated diorite -medium grey, f.gr. -very finely speckled with 3% black chlorite(?) speckles -sharp intrusive contacts @ -rare calcite stringers <1 cm wide, approx	70	{52.8-62.0} «mod ser, wk arg»	{52.8-62.0} «2% py» -as fine to med. clusters and stringers up to 1 cm in diameter -commonly within the various qtz stringers {62.0-63.9} «1% py» -as fine to med. disseminated + rare thin stringers <1 mm wide	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 4

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		1 per 80 cm				
63.90 TO 66.60	«CHERTY TUFF»	Colour: buff and grey Grain Size: -irregular lenses (40%) up to 20 cm wide of tuffaceous material are mixed with layers of grey chert -the contacts are intrusive -fine, chloritic and silica filled fracture network (with fractures <1 mm wide approx 1 per 2 cm) -one pyrite-chlorite stringer 8 mm wide @	0		{63.9-66.6} «1% py» -as fine to med. dissem. and stringers -one chlorite-pyrite stringer 8 mm wide contains 30% pyrite	
66.60 TO 71.50	«DIORITE»	Colour: light to med. grey/green Grain Size: f.gr. -banded and mottled textures 10% xenoliths(?) of cherty tuff up to 10 cm wide. -local moderate foliation		{66.6-71.5} «wk arg and wk ser»	{66.6-71.5} «1% py» -as fine dissem. and small clusters up to 8 mm in diameter	
71.50 TO 72.60	«CHERTY TUF F»	Colour: white and light grey Grain Size: -intensely fractures, with <1 mm wide fractures, approx 3 per cm filled by silica and pyrite -contracts are intrusive (?) @	50	{71.5-72.6} «i silica»	«1% py» -as med. dissem, clusters and stringers up to 3 mm wide	
72.60 TO 89.60	«PORPHYRITIC DIORITE»	Colour: dark grey/green Grain Size: m.gr. -massive, porphyritic diorite with 20% m.gr. plagioclase laths, mod. foliation @ the upper contact @ 70-80 deg TCA {72.6-73.0} «mod fol» {72.8-72.9} «wk flt» @ -associated with 1 cm of massive pyrite -calcite stringers 1-4 mm wide approx 1 per 30 cm @ all orientations -one chalcedony and pyrite stringers 2 cm wide at 74.5-74.9	80 0		{72.6-89.6} «0.5% py» -as med. disseminations and small clusters <5 mm wide -also within the calcite stringers and 20% of the chalcedony stringer	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 5

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
89.60 TO 93.00	«CHERTY TUF F»	89.6-91.6 -banded and bedded cherty tuff, parallel to the upper contact @ 60-80 deg TCA -30% irregular tuffaceous layers up to 15 cm wide 91.6-92.2: massive and stringer sulphidic zone -banded (bedded?) with 20 cm of massive sulphide @ 91.6-91.8 m containing 70% pyrrhotite(?) (no magnet) and 5% pyrite and 25% qtz -the rest of the interval is intensely foliated parallel to the sulphide and qtz banding @ 70-90 deg with 20% pyrite and pyrrhotite, 40% qtz and 40% fine diorite 92.2-93.0 -finely fractured, cherty tuff with <1 mm wide black pyritic siliceous fractures approx 2 per cm -approx 50/50 tuff/chert			†89.6-91.6† «0.5% py» -as fine disseminations and rare stringers <1 cm wide, parallel to the banding †91.6-91.8† «70% pyrr 5% py» -in a 20 cm wide massive band †91.8-92.2† «20% py and pyrr» -as fine to coarse stringers 1-15 mm wide †92.2-93.0† «0.5% py» -as fine clusters and stringers and minor disseminations	
93.00 TO 96.00	«DIORITE»	Colour: light to dark green Grain Size: f.gr. -banded and mottled texture -weak to moderate foliation @ 60-80 deg TCA -the contacts are intrusive		†93.0-96.0† «local sk ser»	†93.0-96.0† «0.5% py» -as rare clusters up to 7 mm in diameter	
96.00 TO 97.40	«CHERTY TUF F»	Colour: light grey to buff Grain Size: -roughly 50/50 grey chert and intensely foliated tuffaceous(?) layers (foliation @ 40-60 deg) -the cherty layers are finely fractured and silicified †96.0-97.4† «i foliated» -minor white qtz stringers 1-3 mm wide approx 1 per 40 cm		«mod sil»	«0.5% py» -as fine disseminations	
97.40 TO 99.60	«DIORITE»	Colour: buff/yellow green Grain Size: f.gr. -intensely foliated @ 40-70 deg TCA -mottled by sulphide clusters 3-5 mm in diameter		†97.4-99.6† «mod ser»	«5% pyrrhotite» -as fine clusters 3-5 mm in diameter	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 6

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-qtz stringers 1-8 mm wide approx 1 per 15 cm, usually across the foliation, but occasionally parallel to it				
99.60 TO 106.80	«CHERTY TUF F»	Colour: light to med. grey Grain Size: -60% white to grey chert layers up to 60 cm wide bedded with 40% tuffaceous layers -intense fine fracture network filled by silica and pyrite, with fractures <1 mm wide approx 2 per cm, dominantly within the chert layers		‡99.6-106.8‡ «mod sil»	‡99.6-106.8‡ «1% py» -as fine stringers and clusters up to 1 cm in diameter -occasional occurrences of a fine, disseminated black sulphide? that has the appearance of chromite (within the white, chert layers)	
106.80 TO 119.90	«DIORITE»	106.8-118.9: argillic and sericitic diorite -light to med. green -aphanitic to f.gr. -local weak foliation @ 60-90 deg TCA -locally intensely broken and gouged over fairly wide intervals ‡107.7-108.4‡ «mod flt» ‡109.3-109.5‡ «mod flt» -qtz and calcite stringers 4-20 mm wide approx 1 per cm @ all orientations 118.9-119.9: i. foliated and altered diorite -yellowish grey, f.gr. -intense foliation @ 70-80 deg TCA -qtz and qtz/calcite stringers, 2-20 mm wide, 1 per 20 cm, parallel to and crosscutting the foliation	70	‡106.8-107.7‡ «wk arg, wk ser» ‡107.7-109.5‡ «i arg» ‡109.5-118.9‡ «mod ser» -alteration intensity increases with depth ‡118.9-119.9‡ «i sericite»	‡106.8-118.9‡ «1% py» -as fine clusters up to 1 cm in diameter and fine to med. dissemination -also within the qtz/calcite stringers (5%) -sulphide content increases with depth ‡118.9-119.9‡ «1% py, <0.5% cpy» -pyrite as fine to coarse dissem. often within qtz stringers and coarse stringers up to 5 mm wide -cpy occurs as fine disseminations with pyrite	
119.90 TO 121.20	«QTZ & SULPHIDE SHEAR»	Colour: white and grey Grain Size: f.gr. 119.9-120.5: sheared qtz and sulphide -60% white qtz in narrow, irregular bands 5-10 cm wide, @ 60-70 deg TCA with 20% sulphides and 20% wallrock(?) clasts			‡119.5-120.5‡ «20% py» -in fine to med. submassive bands up to 2 cm wide	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 7

HOLE NUMBER: TM92-41

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>-common stylolites parallel to the qtz and sulphide bands</p> <p>120.5-120.9: sulphide stringer zone -intensely foliated @ 60-80 deg TCA parallel to bands of pyrite (30% overall) -10% qtz in narrow white bands and the rest of the interval is intensely sericitic and foliated diorite</p> <p>120.9-121.2: massive sulphide -banded massive sulphide with 70% fine pyrrhotite(?) (brassy) and 20% coarse pyrite 0.5% chalcopyrite -10% qtz, localized along the lower contact @ -some vuggy and net textures</p>	90	<p>‡120.5-120.9‡ «i sericite»</p>	<p>«30% py» -pyrrhotite? (no magnet) in fine bands up to 1 cm wide, parallel to an intense foliation</p> <p>‡120.9-121.2‡ «70% pyrrhotite» -20% pyrite, 0.5% chalcopyrite -the pyrrhotite is f.gr. and is banded with 1-2 cm wide bands of coarse pyrite -the chalcopyrite is finely disseminated within the coarse pyrite bands</p>	
121.20 TO 126.60	«ALTERED ULTRAMAFIC»	<p>Colour: dark grey Grain Size: f.gr. -web textured (stringered) with 5% white carbonate (some fizz) filled fractures @ all orientations 0.5-1 mm wide, approx 1 per cm</p> <p>-narrow unstringered (massive) intervals may be diorite (?) -wider crosscutting calcite stringers 0.5-2 cm wide occur 1 per 25 cm</p> <p>-locally weakly broken</p> <p>‡122.3-122.4‡ «wk flt»</p>		<p>‡121.2-126.6‡ «mod carb, wk sil»</p>	<p>«0.5% py» -as fine dissem., except one 3 cm band of massive pyrite and pyrrhotite @ 121.5 m -sulphide decrease overall away from the shear zone</p>	
126.60 TO 129.80	«SILTSTONE»	<p>Colour: dull green, grey Grain Size: f.gr. -bedded green siltstone (70%) with 30% darker, coarser layers 3-10 mm wide -common, tiny offsets of bedding are probably a solution cleavage -dolomite(?) (white, soft, doesn't fizz) stringers 1-5 mm wide approx 1 per 30 cm @ 10-50 deg TCA</p>			<p>‡126.6-129.8‡ «0.5% py» -as fine dissem. and clusters <5 mm wide</p>	

HOLE NUMBER: TM92-41

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 8

HOLE NUMBER: TM92-41

ASSAY SHEET

DATE: 16-December-1992

Sample	From (m)	To (m)	Length (m)	ASSAYS		GEOCHEMICAL										Aug/t g/t	Aupt oz/t	COMMENTS
				Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Hg ppb	Fe %	S %			
17216	1.20	5.00	3.80	0.1	67	363	58	2	17	9	51	14	5	5.91	0.62	.	.	
17217	5.00	8.00	3.00	0.3	68	306	48	8	16	9	51	24	10	5.36	0.41	.	.	
17218	8.00	11.00	3.00	0.1	85	132	82	3	32	17	66	69	15	7.2	1.19	.	.	
17219	11.00	14.00	3.00	0.1	152	163	102	5	32	23	69	45	10	6.82	1.04	.	.	
17220	14.00	16.80	2.80	0.1	136	104	101	4	33	22	75	67	35	7.08	1.15	.	.	
17221	16.80	19.40	2.60	0.1	90	285	62	2	24	13	54	11	10	6.48	0.48	.	.	
17222	19.40	22.40	3.00	0.1	59	2141	12	5	35	11	75	8	10	3.65	0.23	.	.	
17223	22.40	23.90	1.50	0.1	57	7908	12	5	47	11	78	10	15	4.31	0.17	.	.	
17224	23.90	25.60	1.70	0.1	184	10000	15	7	46	29	103	9	30	7.62	0.25	.	.	
17225	25.60	26.40	0.80	0.1	51	6849	11	5	35	10	62	11	25	3.62	0.16	.	.	
17226	26.40	29.40	3.00	0.1	154	4042	19	5	30	21	87	6	15	6.79	0.32	.	.	
17227	29.40	32.40	3.00	0.1	123	330	24	3	32	18	69	28	10	5.86	0.26	.	.	
17228	32.40	33.60	1.20	0.1	171	118	26	3	26	19	79	37	15	6.67	0.45	.	.	
17229	33.60	34.20	0.60	0.1	323	142	23	4	26	20	86	24	25	6.81	0.07	.	.	
17230	34.20	35.90	1.70	0.1	143	393	43	4	27	17	72	244	20	6.81	1.18	.	.	
17231	35.90	37.00	1.10	0.1	74	77	42	3	20	9	29	20	15	3.56	0.86	.	.	
17232	37.00	40.00	3.00	0.1	98	458	48	3	21	14	71	43	20	7.12	0.76	.	.	
17233	40.00	42.40	2.40	0.1	179	211	68	4	35	22	73	39	5	6.89	0.95	.	.	
17234	42.40	45.40	3.00	0.1	87	461	135	4	21	13	20	166	10	4.07	2.04	.	.	
17235	45.40	48.40	3.00	0.1	70	307	68	3	19	10	24	47	10	3.56	1.25	.	.	
17236	48.40	51.40	3.00	0.1	105	177	126	6	29	14	32	121	5	5.89	2.77	.	.	
17237	51.40	52.80	1.40	0.1	128	498	137	8	32	16	45	127	15	6.25	2.53	.	.	
17238	52.80	55.80	3.00	0.1	104	189	157	.	26	15	66	100	15	7.42	2.56	.	.	
17239	55.80	58.80	3.00	0.1	145	644	239	.	36	23	70	164	5	9.6	4.1	.	.	
17240	58.80	62.00	3.20	0.1	86	1469	161	.	29	17	64	92	10	7.3	2.26	.	.	
17241	62.00	63.90	1.90	0.1	86	211	161	.	26	18	40	58	20	6.66	2.87	.	.	
17242	63.90	66.60	2.70	0.1	75	362	130	.	25	13	29	46	10	4.49	1.64	.	.	
17243	66.60	69.60	3.00	0.1	103	187	171	.	30	21	61	44	15	7.78	2.37	.	.	
17244	69.60	71.50	1.90	0.1	86	178	125	.	28	17	43	35	10	5.64	2	.	.	
17245	71.50	72.60	1.10	0.1	62	564	65	.	18	9	16	71	10	2.34	0.83	.	.	
17246	72.60	75.60	3.00	0.1	116	199	143	.	38	18	96	134	5	7.64	2.6	.	.	
17247	73.60	78.60	3.00	0.1	64	523	167	.	30	16	57	56	10	6.73	2.06	.	.	
17248	78.60	81.60	3.00	0.1	78	785	128	.	37	16	103	135	10	6.98	1.66	.	.	
17249	81.60	84.60	3.00	0.1	77	152	84	.	27	17	62	208	5	8.31	1.95	.	.	
17250	84.60	87.60	3.00	0.1	53	411	93	.	24	13	53	55	15	7.29	1.74	.	.	
17251	87.60	89.60	2.00	0.1	64	244	99	.	31	16	61	53	15	6.88	2.04	.	.	
17252	89.60	91.60	2.00	0.1	55	584	57	.	31	13	56	32	5	2.87	0.56	.	.	
17253	91.60	92.20	0.60	0.5	336	27	895	.	26	55	62	2790	10	15	14.8	3.05	0.089	

HOLE NUMBER: TM92-41

ASSAY SHEET

PAGE: 9

HOLE NUMBER: TM92-41

ASSAY SHEET

DATE: 16-December-1992

Sample	From (m)	To (m)	Length (m)	Ag ppm	As ppm	Ba ppm	Cu ppm	Mo ppm	Pb ppm	Sb ppm	Zn ppm	Au ppb	Hg ppb	Fe %	S %	Aug/t g/t	Auopt oz/t
17254	92.20	93.00	0.80	0.1	138	99	195	.	36	22	49	173	5	7.2	2.87		
17255	93.00	96.00	3.00	0.1	127	134	84	.	28	18	75	48	5	6.11	1.15		
17256	96.00	97.40	1.40	0.1	199	58	38	.	31	20	62	24	5	4.56	0.31		
17257	97.40	99.60	2.20	2	474	23	615	.	427	36	1371	117	20	7.67	2.52		
17258	99.60	102.60	3.00	0.1	116	486	133	.	33	16	59	48	10	4.32	0.94		
17259	102.60	105.60	3.00	0.1	68	147	116	.	30	12	45	63	10	3.69	1.3		
17260	105.60	106.80	1.20	0.1	98	323	192	.	270	14	871	107	20	5.02	2.34		
17261	106.80	107.70	0.90	0.1	138	182	180	.	43	25	125	35	15	8.35	2.08		
17262	107.70	109.50	1.80	0.1	173	1077	260	.	276	22	727	98	30	8.88	3.36		
17263	109.50	112.50	3.00	0.1	104	1346	95	.	32	17	84	80	10	7.19	1.04		
17264	112.50	115.50	3.00	0.1	139	561	38	.	33	17	85	13	15	6.51	0.49		
17265	115.50	118.90	3.40	0.1	111	198	196	.	37	19	61	41	15	7.9	2.65		
17266	118.90	119.90	1.00	0.1	247	313	488	.	42	22	59	114	20	8.03	2.67		
17267	119.90	120.50	0.60	2.1	920	174	687	1	14	33	44	290	15	8.51	5.41		
17268	120.50	120.90	0.40	1.2	363	27	491	1	3	24	59	1060	15	14.34	4.96	1.16	0.034
17269	120.90	121.20	0.30	9.5	359	13	2642	1	1	11	3	10000	20	15	25.3	58.46	1.700
17270	121.20	124.20	3.00	0.1	374	2095	230	.	32	27	82	156	5	6.41			
17271	124.20	126.60	2.40	0.1	123	1508	76	.	28	16	78	25	10	5.17	0.41		
17272	126.60	129.80	3.20	0.1	114	1099	61	.	26	13	103	21	15	5.02	0.26		

HOLE NUMBER: TM92-41

ASSAY SHEET

PAGE: 10

HOLE NUMBER: TM92-42

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT NAME: WILDROSE
PROJECT NUMBER: 661
CLAIM NUMBER: WILDROSE
LOCATION: DEADWOOD ZONE

PLOTTING COORDS GRID:
NORTH: 255.00N
EAST: 100.00W
ELEV: 1220.00

ALTERNATE COORDS GRID:
NORTH: 0+ 0
EAST: 0+ 0
ELEV: 1220.00

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 128.90m
START DEPTH: 0.00m
FINAL DEPTH: 128.90m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 220° 0' 0"

DATE STARTED: 0, 0
DATE COMPLETED: 0, 0
DATE LOGGED: November 6, 1992

COLLAR SURVEY: NO
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NQ

CONTRACTOR: ATLAS DRILLING LTD.
CASING:
CORE STORAGE: GREENWOOD

PURPOSE:

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
56.10	-	-48° 0'	ACID	OK		-	-	-	-	-	
93.30	-	-45° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	

MINNOVA INC.
DRILL HOLE RECORD

HOLE NUMBER: TM92-42

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 2.70	«CASING»					
2.70 TO 16.00	«DIORITE»	<p>2.7-10.7: sericitic and argillic diorite -massive, mottled textures -white calcite stringers (coarse grained), 2-30 mm wide, approx 1 per 40 cm @ all orientations -light to med. green, f.gr.</p> <p>10.7-11.9: calcite stringer zone -white and green, f.gr. -25% white, banded calcite stringers, 3-15 mm wide, locally coalescing to form a matrix around 1-3 cm, diorite clasts -stringers are usually 0-30 deg tCA ↓10.7-11.9↓ «calcite stringer zone»</p> <p>11.9-16.0: sericitic diorite -yellowish green, f.gr. -massive, locally mottled diorite, cut by 2-10 mm wide calcite and quartz/calcite stringers approx 1 per 30 cm @ all orientations</p>		<p>↓2.7-10.7↓ «wk arg, wk ser»</p> <p>↓10.7-11.9↓ «wk arg, wk ser»</p> <p>↓11.9-16.0↓ «mod ser, mod carb»</p>	<p>↓2.7-10.7↓ «0.5% py» -as fine dissemin. and clusters up to 1 cm in diameter, occasionally within the calcite stringers</p> <p>↓10.7-11.9↓ «1% py» -as med. dissem. within and outside of the calcite stringers</p> <p>↓11.9-16.0↓ «0.5% py» -as rare dissem and fine clusters up to 1 cm in diameter</p>	
16.00 TO 41.10	«CHERTY TUF F»	<p>Colour: light to med. grey Grain Size: -locally, moderately broken and rusty -moderate fine fracture network filled by chlorite (?) and silica -fractures <1 mm wide, approx 1 per cm @ all orientations -approx 50/50 tuffaceous/chert layers commonly 10-40 cm wide -occasional fine bedding within the tuffaceous layers</p>		↓16.0-41.1↓ «local wk arg»	↓16.0-41.1↓ «0.5% py» -as fine to coarse disseminations	
41.10 TO 43.10	«LAPILLI TU FF»	<p>Colour: med. grey Grain Size: f.gr. -sandy texture, massive concordant with banding (bedding?) in the cherty tuff above. -contacts @ -white, calcite stringers 3-5 mm wide approx.</p>	60		↓41.1-43.1↓ «1% py» -as fine disseminations and stringers <1 mm wide	

HOLE NUMBER: TM92-42

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		1 per 30 cm @ 20-40 deg				
43.10 TO 45.20	«CHERTY TUFF»	Colour: med. grey Grain Size: aphanitic -massive, weakly banded cherty tuff -weak, fine fracture network			{43.1-45.2} «0.5% py» -as fine to med. disseminations	
45.20 TO 49.30	«LAPILLI TUFF»(?)	Colour: med. grey Grain Size: f.gr. -massive, sandy textured tuff containing anhedral crystals and lithic frags(?) up to 2 mm in diameter -two narrow intervals (0.7 m + 0.3 m) of cherty tuff. -contacts are conformable and 50-60 deg TCA			{45.2-49.3} «0.5% py» -as fine to med. disseminations and minor clusters up to 1 cm in diameter	
49.30 TO 55.70	«MIXED CHERTY TUFF & LAP TUFF»	Colour: med. grey Grain Size: aphanitic to fine -approx 50:50 cherty tuff layers up to 0.8 m, wide bedded with layers of lapilli tuff up to 0.8 m layers of lapilli tuff up to 0.8 m wide -bedding is usually approx 60 deg TCA -occasionally, weakly broken		{49.3-55.7} «wk arg, wk ser»		
55.70 TO 56.00	«FSP PORPHYRY DYKE»	Colour: med. grey Grain Size: porph. -5% m.gr., euhedral plagioclase phenocrysts in a dull grey, aphanitic matrix -upper contact is a wk flt @ {55.7-55.8} «wk flt» -lower contact is weakly broken and parallel to an intense foliation in the immediate footwall @	70 50			
56.00 TO 64.60	«MIXED CHERTY TUFF & ASH TUFF»	Colour: buff/grey Grain Size: f.gr./aphanitic -very mixed, mottled sometimes banded interval of aphanitic cherty tuffs grading in and out of f.gr. ash tuff -white calcite stringers 1-5 mm wide, approx 1 per 30 cm @ 10-40 deg TCA -brecciated, intrusive lower contact		{56.0-56.4} «wk arg, med. ser»	{56.0-56.4} «4% py, tr cpy» -as fine to med. clusters and stringers up to 1 cm in diameter -some of the pyrite may be pyrrhotite (no magnet)	This unit may be Mt. Atwood Group (seds??)

HOLE NUMBER: TM92-42

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 3

HOLE NUMBER: TM92-42

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
64.60 TO 65.00	«FSP & BIOTITE PORPH. DYKE»	Colour: med. green Grain Size: porph. -8% m.gr., white plagioclase phenocrysts and 8% black, coarse grained biotite phenocrysts in an aphanitic green matrix -contacts @ 40 deg TCA, upper one is a 10 cm breccia				marron feeder?
65.00 TO 104.60	«MIXED CHERTY TUFF & ASH TUFFS»	Colour: light green to med. grey Grain Size: aphanitic to fine -very mixed interval of fine ash tuffs and aphanitic cherty tuffs with gradational contacts -occasional bedding and sharp contacts @ 50-90 deg TCA -rare calcite stringers 3-10 mm wide approx 1 per meter @ all orientations		{65.0-104.6} «wk arg, wk ser»	{65.0-104.6} «1% py» -as fine disseminations and occasional clusters < 5 mm in diameter	This unit may be Mt. Atwood Group sedts?
104.60 TO 105.00	«FSP PORPH DYKE»	Colour: med. green Grain Size: porph. -5% white to light brown, med. grained plagioclase laths and 10% dark green chloritic speckles in a green, aphanitic matrix -the contacts are intrusive @	60			This may be a feeder to marron volcanics(?)
105.00 TO 113.40	«CHERTY TUFF»	105.0-108.0: moderately silicified cherty tuff -finely bedded tuffaceous layers <2 cm wide @ 70-90 deg TCA -fine silica fracture fills in the cherty layers @ 10-30 deg TCA 108.0-113.4: intensely silicified cherty tuff -white/light grey -very fine fracture network filled by silica and pyrite (fractures <1 mm wide approx 1 per cm)		{105.0-108.0} «mod. sil» {108.0-113.4} «i silica»	«1% py» -as fine disseminations and stringers up to 1 mm wide {108.0-113.4} «3% py» -as fine fracture fillings (discontinuous hairline fractures) and med. stringer and clusters up to 5 mm wide	

HOLE NUMBER: TM92-42

DRILL HOLE RECORD

LOGGED BY: S. BLOWER

PAGE: 4

HOLE NUMBER: TM92-42

MINNOVA INC.
DRILL HOLE RECORD

DATE: 16-December-1992

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
113.40 TO 115.60	«DIORITE»	Colour: med. green/grey Grain Size: f.gr. -massive, f.gr. diorite, minor intervals with 10% fine, white plagioclase pheno's		‡113.4-115.6‡ «wk arg»	‡113.4-115.6‡ «1% py» -as fine disseminations	
115.60 TO 116.90	«CHERTY TUF F»					
116.90 TO 120.80	«DIORITE»					
120.80 TO 128.90	«CHERTY TUF F»					

HOLE NUMBER: TM92-42

ASSAY SHEET

DATE: 16-December-1992

Sample	From (m)	To (m)	Length (m)												COMMENTS	
17273	2.70	5.70	3.00	0.1	102	134	19	.	27	15	109	12	5	7.38	0.08	
17274	5.70	8.70	3.00	0.1	95	370	48	.	28	12	81	6	15	6.00	0.33	
17275	8.70	10.70	2.00	0.1	114	204	40	.	23	12	79	5	50	6.04	0.27	
17276	10.70	11.90	1.20	0.1	138	110	14	.	29	19	97	4	30	6.84	0.31	
17277	11.90	14.90	3.00	0.1	168	249	31	.	33	17	102	6	10	6.24	0.08	
17278	14.90	16.00	1.10	0.1	249	244	99	.	28	22	168	72	5	8.48	0.76	
17279	16.00	19.00	3.00	0.1	47	1955	39	.	12	5	29	24	10	2.29	0.34	
17280	19.00	22.00	3.00	0.1	49	138	42	.	18	6	35	10	5	2.65	0.20	
17281	22.00	25.00	3.00	0.1	37	2997	16	.	18	5	33	11	10	2.68	0.18	
17282	25.00	28.00	3.00	0.1	50	246	49	.	16	5	26	41	20	2.70	0.60	
17283	28.00	31.00	3.00	0.1	57	303	28	.	17	5	28	28	25	2.67	0.17	
17284	31.00	34.00	3.00	0.1	52	418	57	.	21	7	30	48	5	3.34	0.63	
17285	34.00	37.00	3.00	0.1	54	2208	29	.	21	9	60	38	5	3.78	0.96	
17286	37.00	39.10	2.10	0.8	92	428	68	.	21	10	17	144	10	4.50	2.82	
17287	39.10	41.10	2.00	0.1	75	258	94	.	22	9	15	150	5	4.89	3.30	
17288	41.10	43.10	2.00	0.1	55	152	67	.	22	9	22	56	15	4.37	2.28	
17289	43.10	45.20	2.10	0.1	47	1090	43	.	18	7	18	34	5	2.89	1.00	
17290	45.20	47.30	2.10	0.1	59	182	80	.	22	10	20	80	10	3.52	1.56	
17291	47.30	49.30	2.00	0.1	47	182	42	.	16	6	13	37	10	2.39	0.80	
17292	49.30	52.30	3.00	0.6	78	293	153	.	19	12	15	140	20	4.01	1.95	
17293	52.30	55.70	3.40	0.6	80	425	193	.	20	13	13	1610	10	4.45	3.43	1.68 0.049
17294	55.70	56.00	0.30	0.1	58	3585	18	.	28	11	63	44	65	3.47	0.27	
17295	56.00	59.00	3.00	0.1	66	170	42	.	13	5	14	67	10	2.75	0.92	
17296	59.00	62.00	3.00	0.1	59	114	108	.	17	8	19	54	5	3.51	1.28	
17297	62.00	64.60	2.60	0.8	237	243	260	.	168	17	197	298	25	6.25	4.43	
17298	64.60	65.00	0.40	0.1	98	115	135	.	29	15	91	41	5	5.66	0.22	
17299	65.00	68.00	3.00	0.1	69	152	122	.	17	10	17	60	5	3.77	1.78	
17300	68.00	71.00	3.00	0.1	66	139	76	.	70	11	212	48	15	3.99	1.56	
17301	71.00	74.00	3.00	0.3	73	145	158	.	18	10	18	125	50	3.77	2.26	
17302	74.00	77.00	3.00	0.1	36	127	19	.	12	6	21	18	5	2.15	0.25	
17303	77.00	80.00	3.00	0.1	51	110	15	.	27	7	52	23	5	2.78	0.28	
17304	80.00	83.00	3.00	0.1	52	158	15	.	13	7	29	11	10	3.16	0.26	
17305	83.00	86.00	3.00	0.1	45	111	54	.	29	7	56	33	15	2.47	0.88	
17306	86.00	89.00	3.00	0.1	62	1437	49	.	22	8	42	20	5	3.39	0.91	
17307	89.00	92.00	3.00	0.1	51	109	71	.	16	5	19	29	10	2.62	1.09	
17308	92.00	95.00	3.00	3.4	223	571	269	.	340	15	1183	951	5	6.42	4.00	0.92 0.027
17309	95.00	98.00	3.00	0.4	55	172	73	.	164	7	637	85	10	3	1.27	
17310	98.00	101.30	3.30	0.1	53	201	38	.	28	7	59	18	15	2.73	0.53	

HOLE NUMBER: TM92-42

ASSAY SHEET

PAGE: 6

HOLE NUMBER: TM92-42

ASSAY SHEET

DATE: 16-December-1992

Sample	From (m)	To (m)	Length (m)													
17311	101.30	104.60	3.30	0.1	68	367	23	.	118	8	347	15	10	2.92	0.27	
17312	104.60	105.00	0.40	0.1	96	384	101	.	29	16	104	8	25	6.39	0.26	
17313	105.00	108.00	3.00	0.1	70	248	51	.	11	5	19	35	5	2.07	0.72	
17314	108.00	110.70	2.70	0.1	2395	126	87	.	11	7	8	399	10	2.02	1.44	
17315	110.40	113.40	3.00	0.1	71	55	115	.	9	6	8	146	10	2.14	1.89	
17316	113.40	115.60	2.20	0.1	153	74	293	.	36	23	45	177	25	10	5.64	
17317	115.60	116.90	1.30	0.8	116	59	228	.	123	16	723	329	10	5.32	4.60	
17318	116.90	118.90	2.00	0.1	135	214	241	.	33	18	79	91	10	8.08	3.43	
17319	118.90	120.80	1.90	0.1	138	139	148	.	35	20	99	55	5	8.01	3.04	
17320	120.80	123.80	3.00	0.1	67	58	120	.	20	4	13	204	10	2.46	2.00	
17321	123.80	126.80	3.00	0.1	63	969	106	.	12	6	15	91	10	2.87	1.65	
17322	126.80	128.90	2.10	0.1	48	83	93	.	15	6	18	50	5	2.84	1.36	